DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-000966
Date Inspected: 28-Nov-2007

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 730
OSM Departure Time: 1500
Location: Shanghai, China

CWI Name:	See Below	**CWI Present:**	☑ Yes ☐ No
Inspected CWI report:	☐ Yes ☑ No ☐ N/A	**Rod Oven in Use:**	☑ Yes ☐ No ☐ N/A
Electrode to specification:	☑ Yes ☐ No ☐ N/A	**Weld Procedures Followed:**	☑ Yes ☐ No ☐ N/A
Qualified Welders:	☑ Yes ☐ No ☐ N/A	**Verified Joint Fit-up:**	☐ Yes ☑ No ☐ N/A
Approved Drawings:	☑ Yes ☐ No ☐ N/A	**Approved WPS:**	☑ Yes ☐ No ☐ N/A
		Delayed / Cancelled:	☐ Yes ☑ No ☐ N/A

Bridge No: 34-0006
Component: 89M Tower Mock Up & OBG

Summary of Items Observed:
89M Tower Mock Up:

Bay 2:

The Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Tower Mock Up.

The QA Inspector randomly observed ZPMC Non Destructive Tecnicians Cai Xin Xin and Zhou Dongyun, performing Magnetic Particle Testing (MT) examination on 100% of the tack welds attaching the longitudinal Stiffiners to 89M Skin Plate D, Sub-Assembly MA22. There appeared to be no indications and ZPMC QC accepted the MT of the tack welds on 89M Skin Plate D. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC welding personnel utilizing the carbon air arc gouging process to remove the run on/run off tabs from the copes in the longitudinal stiffeners on Skin Plate C, Sub-Assembly MA23. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC welder Lei Li Chao ID Number 053619, utilizing the Flux Cored Arc Welding (FCAW) Process with approved ZPMC Weld Procedure Specification (WPS) WPS-B-P-2231-TC-U5-F in the 1G position to weld the fill and cover passes on Weld Joint (WJ) Numbers MUSB-MA21-5, 11 & 17 attaching Longitudinal Stiffener mp504-2 to Skin Plate A, Sub-Assembly MA21. The QA Inspector observed ZPMC CWI Sha Zhi monitoring weld parameters. The QA Inspector also performed

random verification of the weld parameters and documented them as follows: welding amperage 309 amps, welding voltage 31.6 volts with a travel speed of 310 millimeters per minute. Weld parameters appeared to comply with the above approved ZPMC WPS. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC welder Li Shu Qiang ID Number 053609, utilizing the FCAW Process with approved ZPMC WPS WPS-B-P-2231-TC-U5-F in the 1G position to weld the fill passes on Weld Joint (WJ) Numbers MUSB-MA38A/F-4, 10A & 14 attaching Longitudinal Stiffener mp543 to Skin Plate E, Sub-Assembly MA38. The QA Inspector observed ZPMC CWI Xu Lefeng monitoring weld parameters. The QA Inspector also performed random verification of the weld parameters and documented them as follows: welding amperage 300 amps, welding voltage 31.2 volts with a travel speed of 323 millimeters per minute. Weld parameters appeared to comply with the above approved ZPMC WPS. The attached photograph provides additional detail.

The QA Inspector randomly observed ZPMC welders Liu Xie ID Number 066236 and Ma Zhiyong ID Number 066019, utilizing the FCAW Process in the 2G position to weld the root passes on Weld Joint (WJ) Numbers MUSB-MA22A/B-7 & 8 attaching Longitudinal Stiffener mp537 to Skin Plate D, Sub-Assembly MA22. The QA Inspector observed ZPMC CWI Xu Lefeng monitoring weld parameters. The QA Inspector also performed random verification of the weld parameters and documented them as follows: welding amperage 297 amps, welding voltage 31.4 volts for Mr. Liu and 310 amps and 30.3 volts for Mr. Ma. The QA Inspector was not afforded the opportunity to monitor travel speed. Weld parameters appeared to comply with the above approved ZPMC WPS. The attached photograph provides additional detail.

Bay 3:

OBG:

The QA Inspector randomly observed ZPMC welder Liu Zihong ID Number 062447, utilizing the FCAW Process with approved ZPMC WPS WPS-B-T-2132-1 in the 2F position to tack weld T-Ribs to Side Plate PL92D. The QA Inspector observed ZPMC CWI Wang Nan monitoring weld parameters. Weld parameters appeared to comply with the above approved ZPMC WPS. The attached photograph provides additional detail.

Bay 7:

OBG:

The QA Inspector randomly observed a ZPMC Torch Cutter utilizing a track mounted semi-automatic torch cutting apparatus to cut the bevels on 30 millimeter thick to 12 millimeter Diaphragm Plates. The attached photograph provides additional detail.

The QA Inspector randomly observed a ZPMC helper utilizing a grinder to blend the tack welds on 30 millimeter thick to 12 millimeter Diaphragm Plates.

WELDING INSPECTION REPORT

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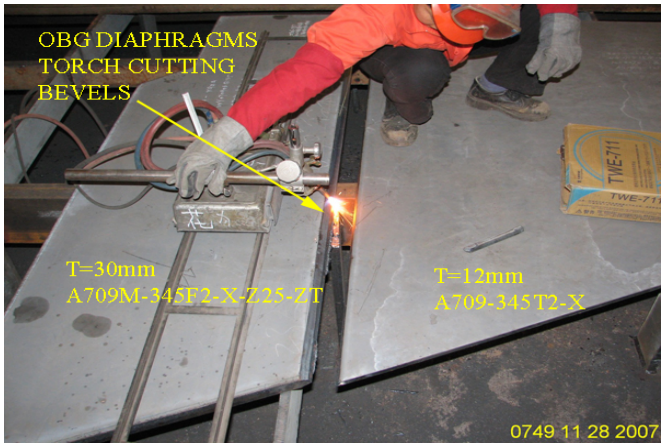

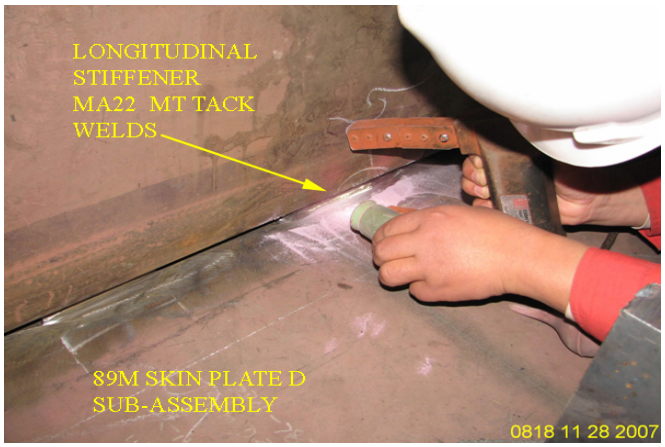

Summary of Conversations:

There were no relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Franco,Charlie	Quality Assurance Inspector
Reviewed By:	Cochran,Jim	QA Reviewer